

Claims

1. A laser-markable plastic, which comprises a thermoplastic and a dopant the dopant comprising

- at least one metal powder and/or semimetal powder selected from the group consisting of aluminum, boron, titanium, magnesium, copper, tin, silicon, zinc and mixtures thereof,

and

- one or more effect pigments based on phyllosilicate.

2. A laser-markable plastic according to claim 1, wherein the metal powder and/or semimetal powder is silicon.

3. A laser-markable plastic according to claim 2, wherein the effect pigment is a pearl luster pigment based on natural or synthetic mica platelets.

4. A laser-markable plastic according to claim 3, wherein the pearl luster pigment is a mica pigment coated with TiO_2 and/or with antimony-tin oxide.

5. A laser-markable plastic according to claim 1, wherein the fraction of metal powder and/or semimetal powder in the dopant is from 0.5 to 10% by weight, based on the weight of the effect pigment.

6. A laser-markable plastic according to claim 1, wherein the thermoplastic is a polyethylene, polypropylene, polyamide or polyester.

7. A laser-markable plastic according to claim 1, wherein the dopant further comprises a metal halide.

8. A laser-markable plastic according to claim 1, wherein the plastic further comprises a color pigment.

9. A process for producing a laser-markable plastic according to claim 1, which comprises adding the metal powder and/or semimetal powder and, respectively, mixtures thereof and one or more effect pigments, simultaneously or successively, and any further auxiliaries to the thermoplastic and then shaping the plastic under the action of heat.
10. A plastic shaped molding comprising the laser-markable plastic according to claim 1.
11. A method for laser marking a plastic which comprises subjecting a laser-markable plastic of claim 1 to a laser beam to leave discernible markings on the plastic where subject to the laser beam.
12. The method of claim 11, wherein the laser is a Nd:YAG laser.
13. The method of claim 11, wherein the laser marking is in the form of a bar code.
14. A laser-markable plastic according to claim 1, wherein the amount of dopant is from 0.1 to 10 percent by weight based on the weight of the thermoplastic.